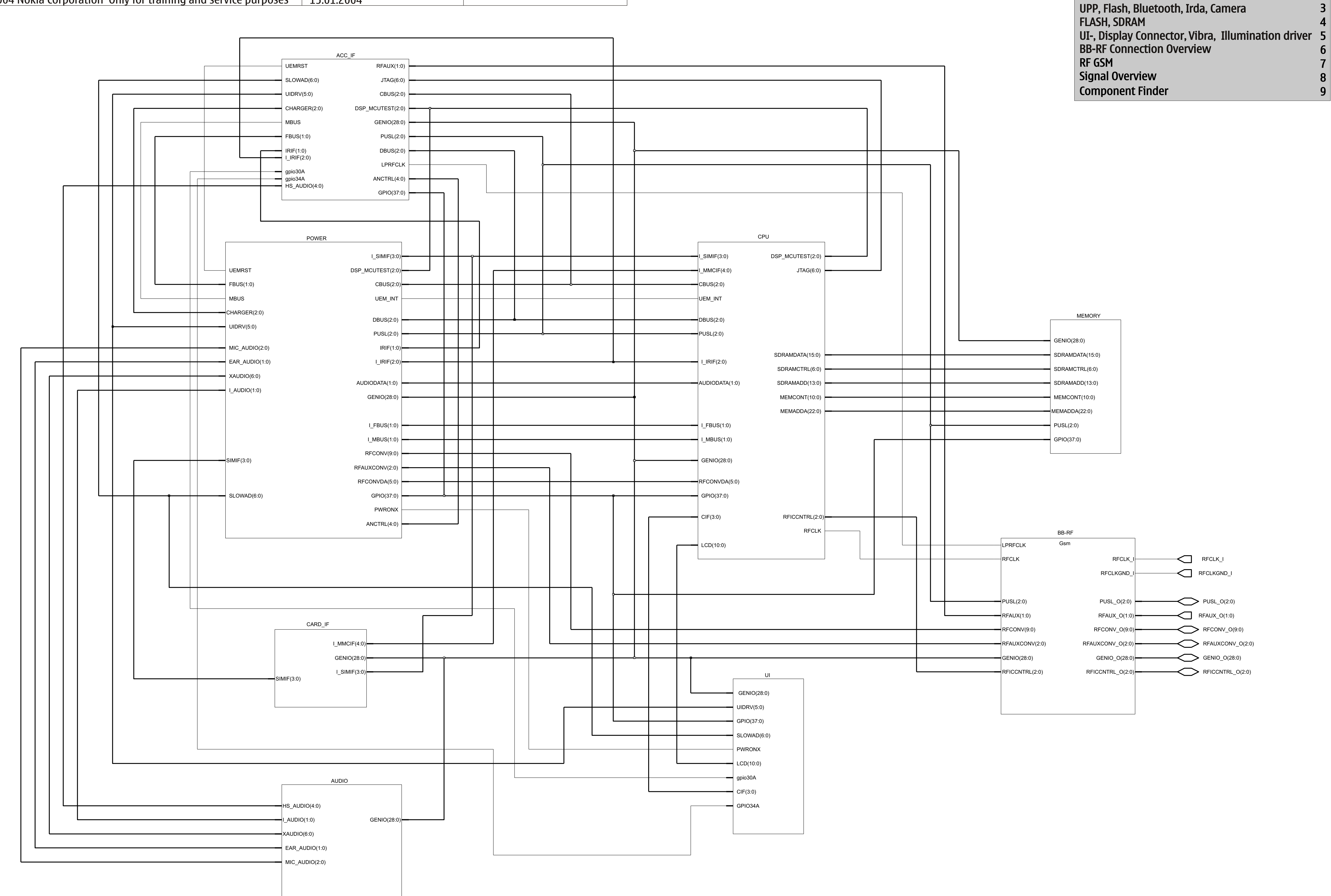
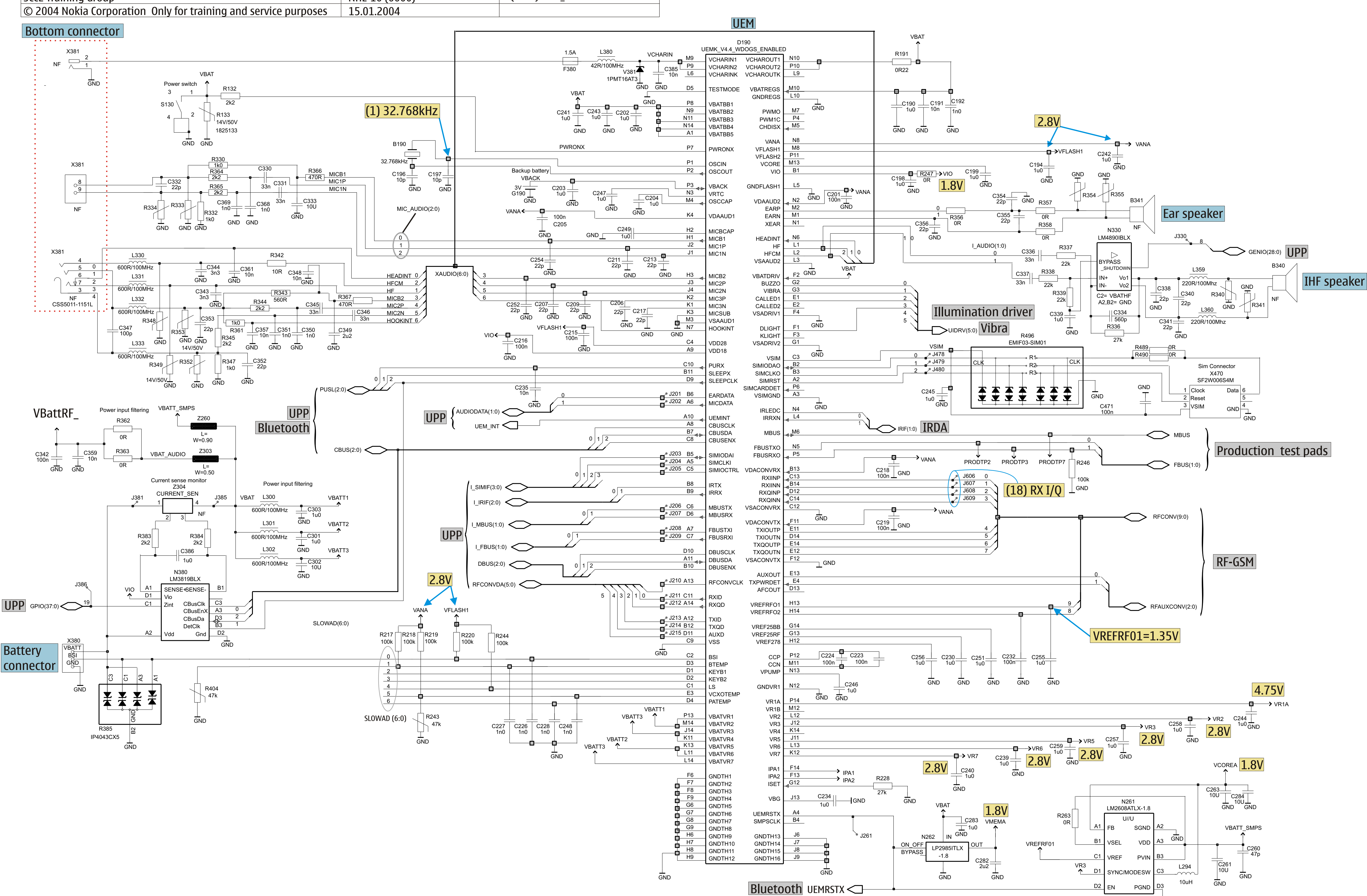
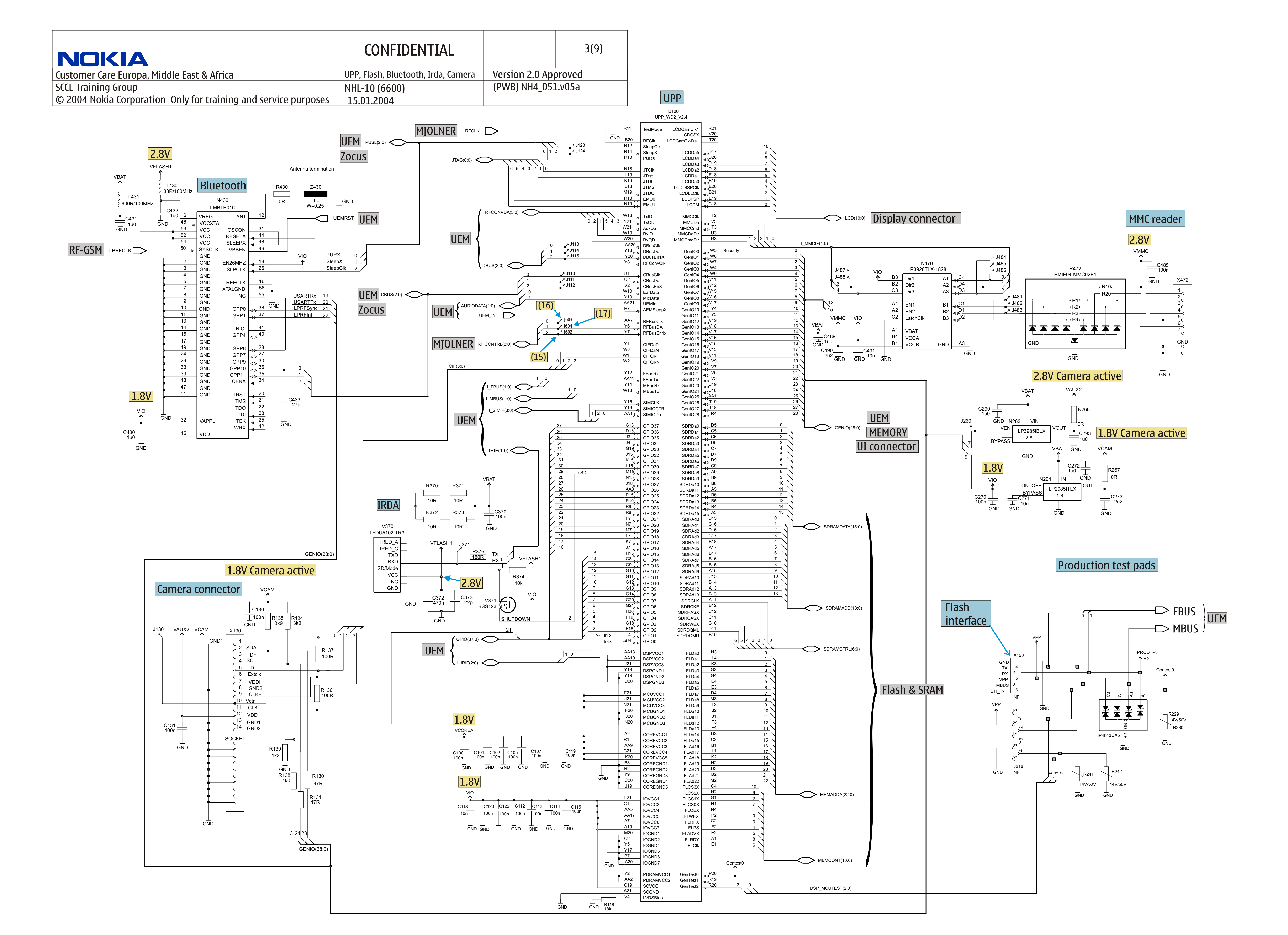
NOKIA	CONFIDENTIAL		1(9)
Customer Care Europa, Middle East & Africa	DCT-4 Common Baseband	Version 2.0 Approved	
SCCE Training Group	NHL-10 (6600)	(PWB) NH4_051.v05a	
	15.01.2004		

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Customer Care Europa, Middle East & Africa	UEM, Bottom Connector, SIM	Version 2.0 Approved	
SCCE Training Group	NHL-10 (6600)	(PWB) NH4_051.v05a	
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3(9)
Customer Care Europa, Middle East & Africa
UPP, Flash, Bluetooth, Irda, Camera
Version 2.0 Approved
SCCE Training Group
NHL-10 (6600)
(PWB) NH4_051.v05a
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15.01.2004
UPP
D100
UPP_WD2_V2.4
MJOLNER
UEM
Zocus
2.8V
Bluetooth
N430
LMBTB016
Antenna termination
RF-GSM
1.8V
Display connector
MMC reader
N470
LP3928TLX-1828
R472
EMIF04-MMC02F1
X472
2.8V Camera active
1.8V Camera active
N263
LP3985IBLX -2.8
N264
LP2985ITLX -1.8
MEMORY
UI connector
IRDA
V370
TFDU5102-TR3
Camera connector
X130
SOCKET
Production test pads
Flash interface
X190
FBUS
MBUS
IP4043CX5
Flash & SRAM
GENIO(28:0)
SDRAMDATA(15:0)
SDRAMADD(13:0)
SDRAMCTRL(6:0)
MEMADDA(22:0)
MEMCONT(10:0)
DSP_MCUTEST(2:0)

15.01.2004

Flash

D315
AM29N643HT70MVAI
FLASHM 4Mx16

Flash

D314
AM29N643HT70MVAI
FLASHM 4Mx16

Flash

D316
AM29N643HT70MVAI
FLASHM 4Mx16

Flash

D317
AM29N643HT70MVAI
FLASHM 4Mx16

MEMADDA(16) – MEMADDA(21), MEMCONT(0) – MEMCONT(8), MEMADDA(0) – MEMADDA(15)

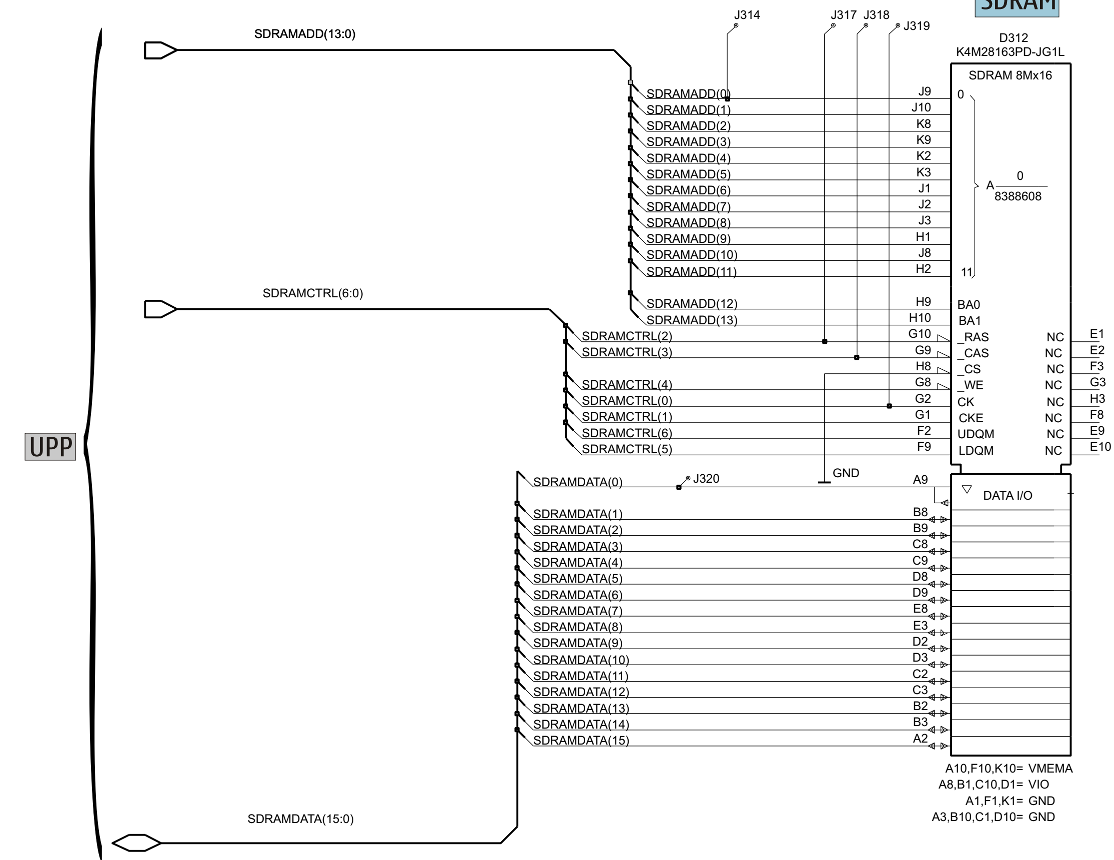
CLK, _AVD, _CE, _RESET, _OE, _WE, _WP, RDY, NC

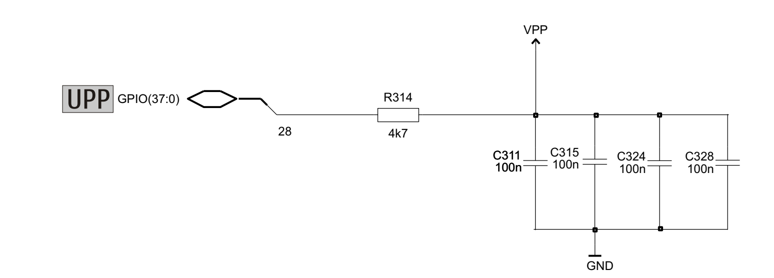
ADDRESS/DATA I/O

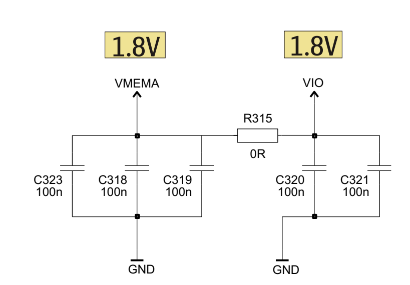
A5,B1,D8= VIO
A7= VPP
A3,B10,C1,D3= GND

1.8V VIO
C326 100n, C312 100n, C314 100n, C316 100n, C329 100n, C327 100n, C322 100n, C325 100n
GND

UPP
GENIO(28:0)
MEMCONT(10:0)
MEMADDA(22:0)









UI connector

VKEYB

X140

ESD filter

Z140
EMIF10-1K010F1

IN1 IN2 IN3 IN4 IN5 IN6 IN7 IN8 IN9 IN10
OUT1 OUT2 OUT3 OUT4 OUT5 OUT6 OUT7 OUT8 OUT9 OUT10

COL5 COL3 COL1 ROW5 ROW3 COL0 ROCKER1 ROCKER3 ROCKER5

ROCKER2 ROCKER4 ROCKER1 ROCKER5 ROCKER3

UPP GENIO(28:0)

RSTX

VIO 1.8V

R167 10k

ESD filter

V140
EMIF02-MIC02F1

ESD_LEV=4 ESD_LEV=1

IP4041CX25 Z141

CH1_IN … CH10_IN
CH1_OUT … CH10_OUT

D3 D2 D1 D0 !WR D7 D6 D5 D4 !RD

D3 D2 A0 WRX D7 D6 D5 D4 RDX CSX

UPP LCD(10:0)

ESD filter

ESD filter

Z142
EMIF10-1K010F1

ROCKER2 ROCKER4 ROW1 ROW0 ROW2 VFC COL2 ROW4 CTI COL4

ROW2 ROW3 ROW4 ROW5 COL2 COL3 COL4 COL1

UPP GPIO(37:0)

D0 D1

2.8V

VFLASH1

R140 10R

Display connector

X142

C132 100n C141 10U C142 10U

VIO 1.8V

R141 0R

C143 100n

Vddi Vdd LED in LED out

!WR D0 D1 D2 D3 !CS D/C D7 D6 D5 D4 TE !RD !RES

R143 10R

R144 14V/50V

(19)
Vibra control on
Intensity 2.9%

VBAT

V131

BAV70W

M130
KHN4NX1B

V132
BAV70W

C134 33n

C135 2u2

Vibra

Keypad light driver

3V Light on

R142 1k0

N140
LM3353_MSOP10

VIN VOUT _SD CFILT C1- C2+ C1+ C2- GND GND

C166 1u0

VKEYB

R146 47R

C144 10U

C165 10U

R148 100k

C167 330n

C168 330n

J150

Display light driver

VBAT

R1 R2 2x10k

DTA114EE
V164

L141
600R/100MHz

R168 2R2

C161 4u7

D140
TK11851L

EN Vin Cx Is GND EXT Vfb

L140 15uH

V141 MBRM140T3

13.4V: Light on
VBatt: Light off

C164 1u0 C169 1u0

C146 47p

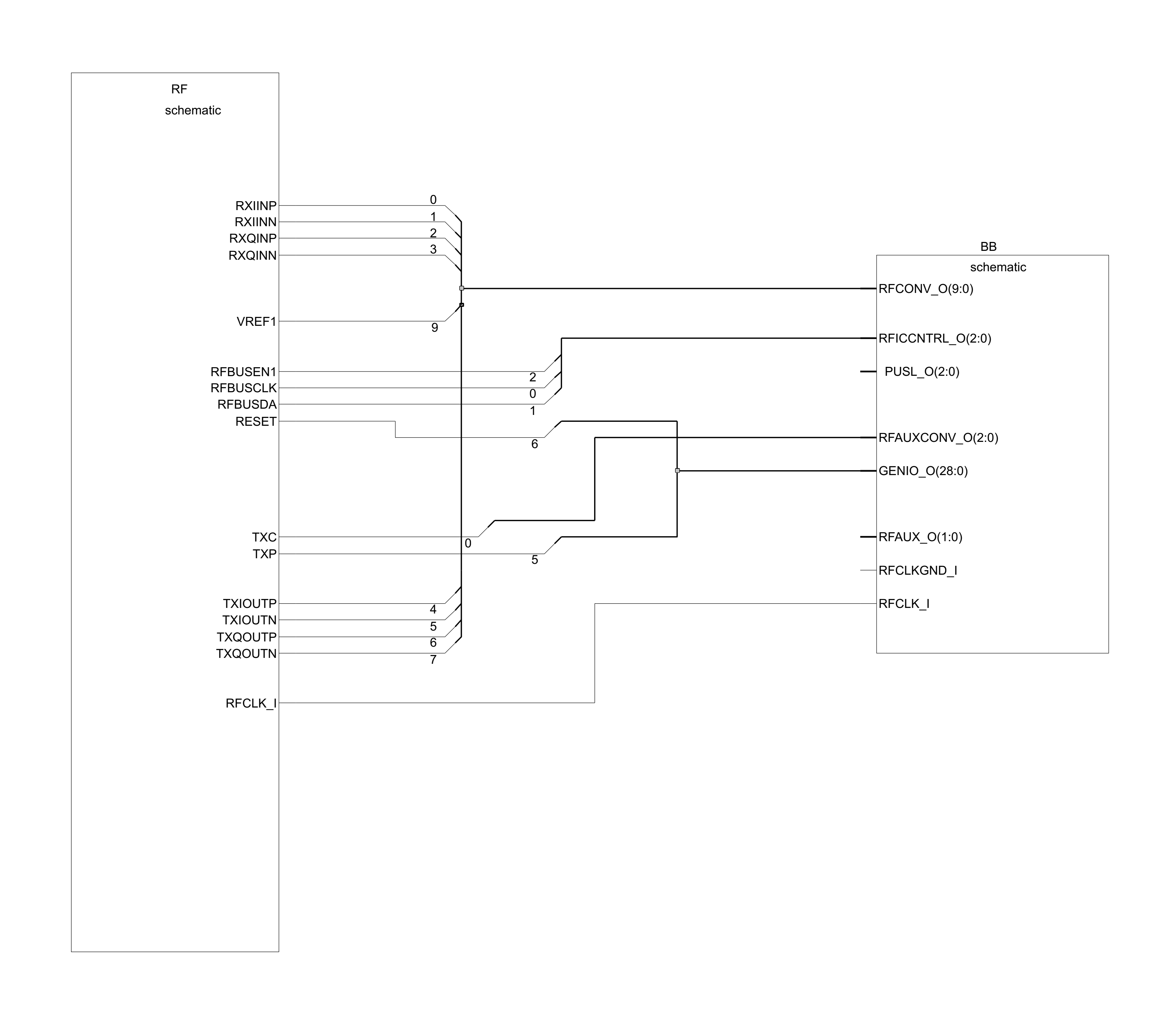
R165 33R

Vovp

LED+ LED-

UEM UIDRV(5:0)

Vibra CallED1 Dlight

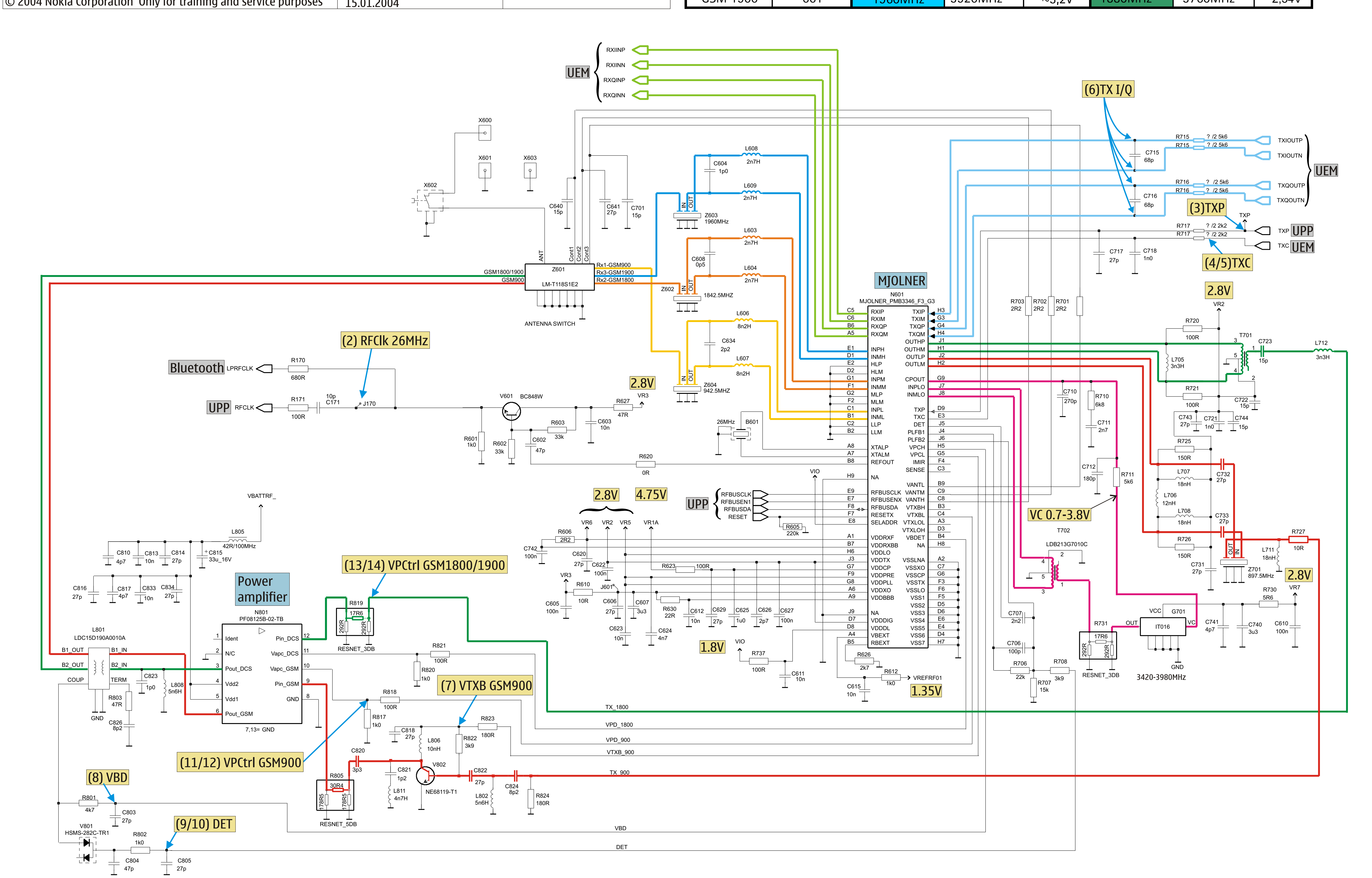


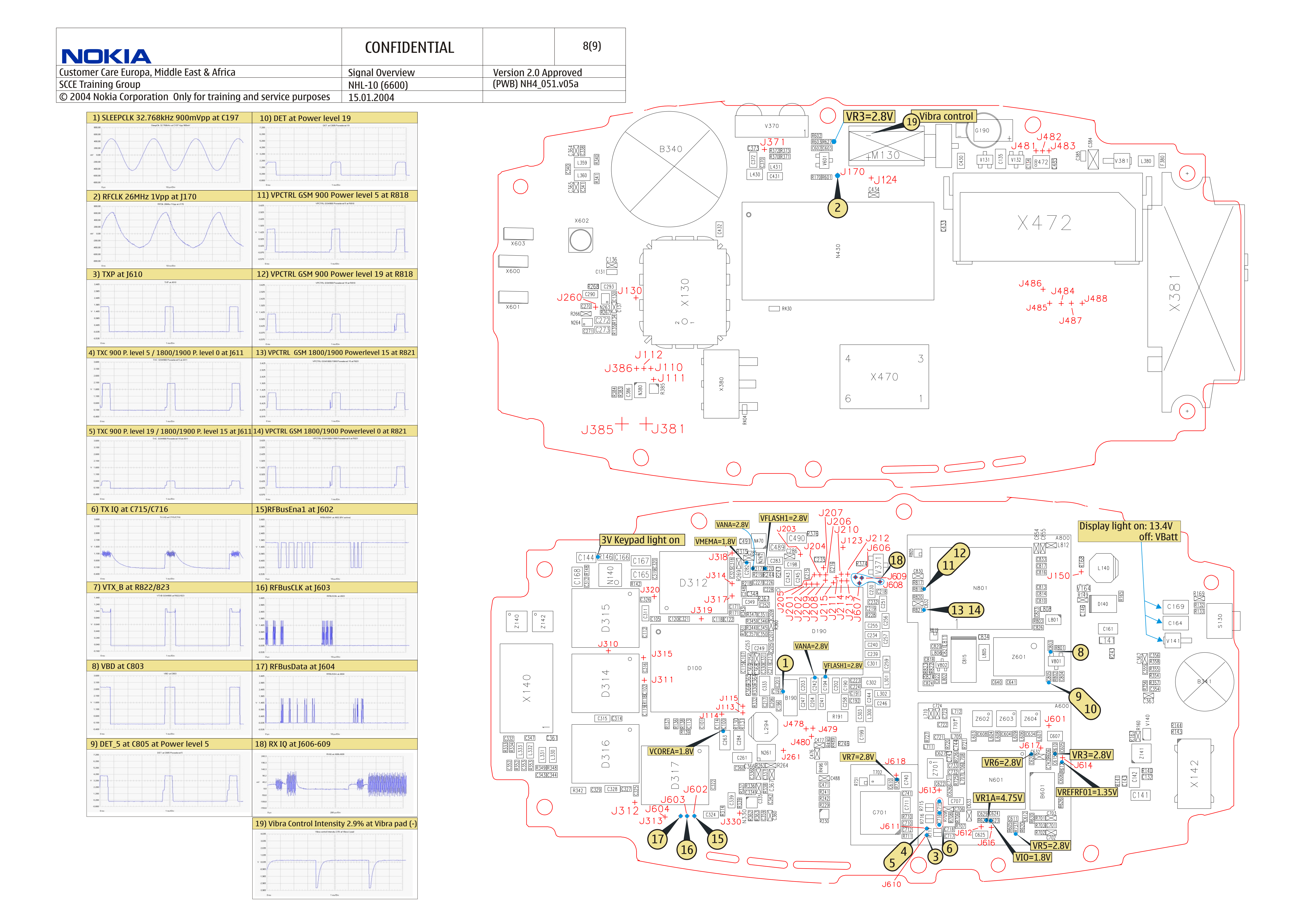
RF
schematic
RXIINP
RXIINN
RXQINP
RXQINN
VREF1
RFBUSEN1
RFBUSCLK
RFBUSDA
RESET
TXC
TXP
TXIOUTP
TXIOUTN
TXQOUTP
TXQOUTN
RFCLK_I
0
1
2
3
9
2
0
1
6
0
5
4
5
6
7
BB
schematic
RFCONV_O(9:0)
RFICCNTRL_O(2:0)
PUSL_O(2:0)
RFAUXCONV_O(2:0)
GENIO_O(28:0)
RFAUX_O(1:0)
RFCLKGND_I
RFCLK_I

Customer Care Europa, Middle East & Africa | RF GSM | Version 2.0 Approved
SCCE Training Group | NHL-10 (6600) | (PWB) NH4_051.v05a

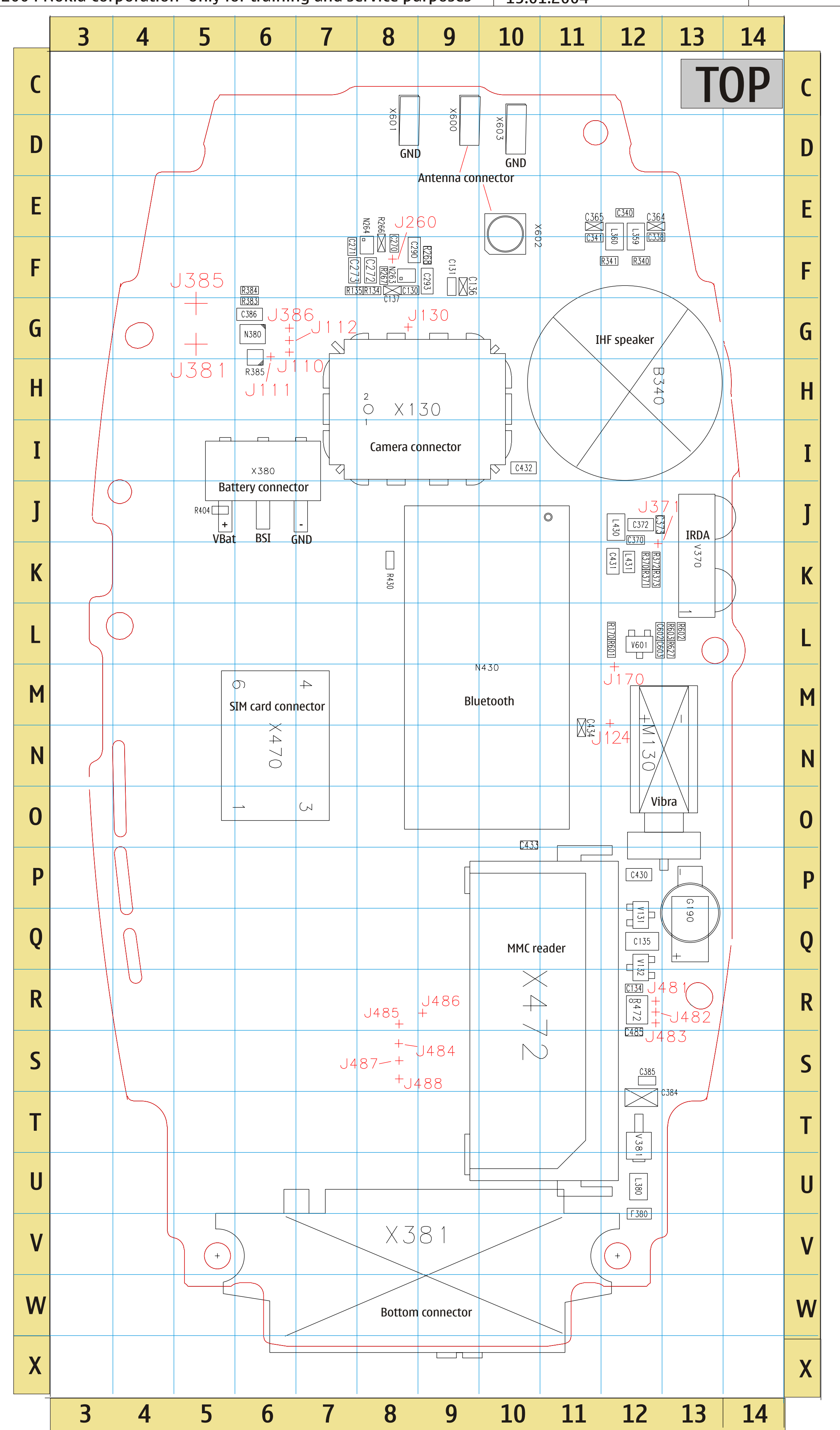
15.01.2004

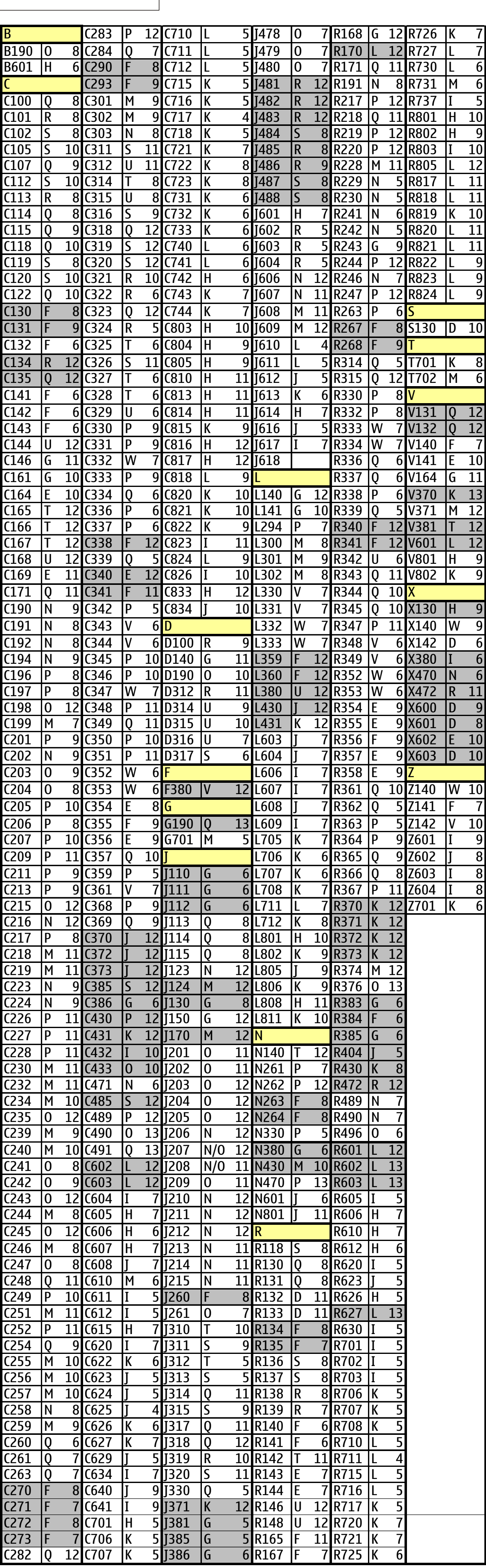
Band	Channel	RX	VCO/RX	VC/RX	TX	VCO/TX	VC/TX
EGSM 900	37	942,4MHz	3769,6MHz	~2,58V	897,4MHz	3589,6MHz	~1,8V
GSM 1800	700	1842,8MHz	3685,6MHz	~2,2V	1747,8MHz	3495,6MHz	~1,4V
GSM 1900	661	1960MHz	3920MHz	~3,2V	1880MHz	3760MHz	~2,54V




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Customer Care Europa, Middle East & Africa
SCCE Training Group
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Signal Overview
NHL-10 (6600)
15.01.2004
Version 2.0 Approved
(PWB) NH4_051.v05a
1) SLEEPCLK 32.768kHz 900mVpp at C197
2) RFCLK 26MHz 1Vpp at J170
3) TXP at J610
4) TXC 900 P. level 5 / 1800/1900 P. level 0 at J611
5) TXC 900 P. level 19 / 1800/1900 P. level 15 at J611
6) TX IQ at C715/C716
7) VTX_B at R822/823
8) VBD at C803
9) DET_5 at C805 at Power level 5
10) DET at Power level 19
11) VPCTRL GSM 900 Power level 5 at R818
12) VPCTRL GSM 900 Power level 19 at R818
13) VPCTRL GSM 1800/1900 Powerlevel 15 at R821
14) VPCTRL GSM 1800/1900 Powerlevel 0 at R821
15)RFBusEna1 at J602
16) RFBusCLK at J603
17) RFBusData at J604
18) RX IQ at J606-609
19) Vibra Control Intensity 2.9% at Vibra pad (-)
VR3=2.8V
Vibra control
B340
M130
X472
X130
N430
X470
X381
X380
J371
J170
J124
J482
J481
J483
J486
J484
J488
J485
J487
J260
J130
J112
J386
J110
J111
J385
J381
3V Keypad light on
VANA=2.8V
VFLASH1=2.8V
VMEMA=1.8V
Display light on: 13.4V
off: VBatt
D312
D315
D314
D316
D317
D100
D190
N801
N601
X140
X142
VANA=2.8V
VFLASH1=2.8V
VCOREA=1.8V
VR7=2.8V
VR6=2.8V
VR3=2.8V
VR1A=4.75V
VREFRF01=1.35V
VR5=2.8V
VIO=1.8V
J150
J601
J602
J603
J604
J606
J607
J608
J609
J610
J611
J612
J613
J614
J616
J617
J618
J312
J313
J330

Customer Care Europa, Middle East & Africa	Component Finder	Version 2.0 Approved
SCCE Training Group	NHL-10 (6600)	(PWB) NH4_051.v05a
	15.01.2004	





B			C283	P	12	C710	L	5	J478	O	7	R168	G	12	R726	K	7
B190	O	8	C284	Q	7	C711	L	5	J479	O	7	R170	L	12	R727	L	7
B601	H	6	C290	F	8	C712	L	5	J480	O	7	R171	Q	11	R730	L	6
C			C293	F	9	C715	K	5	J481	R	12	R191	N	8	R731	M	6
C100	Q	8	C301	M	9	C716	K	5	J482	R	12	R217	P	12	R737	I	5
C101	R	8	C302	M	9	C717	K	4	J483	R	12	R218	Q	11	R801	H	10
C102	S	8	C303	N	8	C718	K	5	J484	S	8	R219	P	12	R802	H	9
C105	S	10	C311	S	11	C721	K	7	J485	R	8	R220	P	12	R803	I	10
C107	Q	9	C312	U	11	C722	K	8	J486	R	9	R228	M	11	R805	L	12
C112	S	10	C314	T	8	C723	K	8	J487	S	8	R229	N	5	R817	L	11
C113	R	8	C315	U	8	C731	K	6	J488	S	8	R230	N	5	R818	L	11
C114	Q	8	C316	S	9	C732	K	6	J601	H	7	R241	N	6	R819	K	10
C115	Q	9	C318	Q	12	C733	K	6	J602	R	5	R242	N	5	R820	L	11
C118	Q	10	C319	S	12	C740	L	6	J603	R	5	R243	G	9	R821	L	11
C119	S	8	C320	S	12	C741	L	6	J604	R	5	R244	P	12	R822	L	9
C120	S	10	C321	R	10	C742	H	6	J606	N	12	R246	N	7	R823	L	9
C122	Q	10	C322	R	6	C743	K	7	J607	N	11	R247	P	12	R824	L	9
C130	F	8	C323	Q	12	C744	K	7	J608	M	11	R263	P	6	S		
C131	F	9	C324	R	5	C803	H	10	J609	M	12	R267	F	8	S130	D	10
C132	F	6	C325	T	6	C804	H	9	J610	L	4	R268	F	9	T		
C134	R	12	C326	S	11	C805	H	9	J611	L	5	R314	Q	5	T701	K	8
C135	Q	12	C327	T	6	C810	H	11	J612	J	5	R315	Q	12	T702	M	6
C141	F	6	C328	T	6	C813	H	11	J613	K	6	R330	P	8	V		
C142	F	6	C329	U	6	C814	H	11	J614	H	7	R332	P	8	V131	Q	12
C143	F	6	C330	P	9	C815	K	9	J616	J	5	R333	W	7	V132	Q	12
C144	U	12	C331	P	9	C816	H	12	J617	I	7	R334	W	7	V140	F	7
C146	G	11	C332	W	7	C817	H	12	J618			R336	Q	6	V141	E	10
C161	G	10	C333	P	9	C818	L	9	L			R337	Q	6	V164	G	11
C164	E	10	C334	Q	6	C820	K	10	L140	G	12	R338	P	6	V370	K	13
C165	T	12	C336	P	6	C821	K	10	L141	G	10	R339	Q	5	V371	M	12
C166	T	12	C337	P	6	C822	K	9	L294	P	7	R340	F	12	V381	T	12
C167	T	12	C338	F	12	C823	I	11	L300	M	8	R341	F	12	V601	L	12
C168	U	12	C339	Q	5	C824	L	9	L301	M	9	R342	U	6	V801	H	9
C169	E	11	C340	E	12	C826	I	10	L302	M	8	R343	Q	11	V802	K	9
C171	Q	11	C341	F	11	C833	H	12	L330	V	7	R344	Q	10	X		
C190	N	9	C342	P	5	C834	J	10	L331	V	7	R345	Q	10	X130	H	9
C191	N	8	C343	V	6	D			L332	W	7	R347	P	11	X140	W	9
C192	N	8	C344	V	6	D100	R	9	L333	W	7	R348	V	6	X142	D	6
C194	N	9	C345	P	10	D140	G	11	L359	F	12	R349	V	6	X380	I	6
C196	P	8	C346	P	10	D190	O	10	L360	F	12	R352	W	6	X470	N	6
C197	P	8	C347	W	7	D312	R	11	L380	U	12	R353	W	6	X472	R	11
C198	O	12	C348	P	11	D314	U	9	L430	J	12	R354	E	9	X600	D	9
C199	M	7	C349	Q	11	D315	U	10	L431	K	12	R355	E	9	X601	D	8
C201	P	9	C350	P	10	D316	U	7	L603	J	7	R356	F	9	X602	E	10
C202	N	9	C351	P	11	D317	S	6	L604	J	7	R357	E	9	X603	D	10
C203	O	9	C352	W	6	F			L606	I	7	R358	E	9	Z		
C204	O	8	C353	W	6	F380	V	12	L607	I	7	R361	Q	10	Z140	W	10
C205	P	10	C354	E	8	G			L608	J	7	R362	Q	5	Z141	F	7
C206	P	8	C355	F	9	G190	Q	13	L609	I	7	R363	P	5	Z142	V	10
C207	P	10	C356	E	9	G701	M	5	L705	K	7	R364	P	9	Z601	I	9
C209	P	11	C357	Q	10	J			L706	K	6	R365	Q	9	Z602	J	8
C211	P	9	C359	P	5	J110	G	6	L707	K	6	R366	Q	8	Z603	I	8
C213	P	9	C361	V	7	J111	G	6	L708	K	7	R367	P	11	Z604	I	8
C215	O	12	C368	P	9	J112	G	6	L711	L	7	R370	K	12	Z701	K	6
C216	N	12	C369	Q	9	J113	Q	8	L712	K	8	R371	K	12			
C217	P	8	C370	J	12	J114	Q	8	L801	H	10	R372	K	12			
C218	M	11	C372	J	12	J115	Q	8	L802	K	9	R373	K	12			
C219	M	11	C373	J	12	J123	N	12	L805	J	9	R374	M	12			
C223	N	9	C385	S	12	J124	M	12	L806	K	9	R376	O	13			
C224	N	9	C386	G	6	J130	G	8	L808	H	11	R383	G	6			
C226	P	11	C430	P	12	J150	G	12	L811	K	10	R384	F	6			
C227	P	11	C431	K	12	J170	M	12	N			R385	G	6			
C228	P	11	C432	I	10	J201	O	11	N140	T	12	R404	J	5			
C230	M	11	C433	O	10	J202	O	11	N261	P	7	R430	K	8			
C232	M	11	C471	N	6	J203	O	12	N262	P	12	R472	R	12			
C234	M	10	C485	S	12	J204	O	12	N263	F	8	R489	N	7			
C235	O	12	C489	P	12	J205	O	12	N264	F	8	R490	N	7			
C239	M	9	C490	O	13	J206	N	12	N330	P	5	R496	O	6			
C240	M	10	C491	Q	13	J207	N/O	12	N380	G	6	R601	L	12			
C241	O	8	C602	L	12	J208	N/O	11	N430	M	10	R602	L	13			
C242	O	9	C603	L	12	J209	O	11	N470	P	13	R603	L	13			
C243	O	12	C604	I	7	J210	N	12	N601	J	6	R605	I	5			
C244	M	8	C605	H	7	J211	N	12	N801	J	11	R606	H	7			
C245	O	12	C606	H	6	J212	N	12	R			R610	H	7			
C246	M	8	C607	H	7	J213	N	11	R118	S	8	R612	H	6			
C247	O	8	C608	J	7	J214	N	11	R130	Q	8	R620	I	5			
C248	Q	11	C610	M	6	J215	N	11	R131	Q	8	R623	J	5			
C249	P	10	C611	I	5	J260	F	8	R132	D	11	R626	H	5			
C251	M	11	C612	I	5	J261	O	7	R133	D	11	R627	L	13			
C252	P	11	C615	H	7	J310	T	10	R134	F	8	R630	I	5			
C254	Q	9	C620	I	7	J311	S	9	R135	F	7	R701	I	5			
C255	M	10	C622	K	6	J312	T	5	R136	S	8	R702	I	5			
C256	M	10	C623	J	5	J313	S	5	R137	S	8	R703	I	5			
C257	M	10	C624	J	5	J314	Q	11	R138	R	8	R706	K	5			
C258	N	8	C625	J	4	J315	S	9	R139	R	7	R707	K	5			
C259	M	9	C626	K	6	J317	Q	11	R140	F	6	R708	K	5			
C260	Q	6	C627	K	7	J318	Q	12	R141	F	6	R710	L	5			
C261	Q	7	C629	J	5	J319	R	10	R142	T	11	R711	L	4			
C263	Q	7	C634	I	7	J320	S	11	R143	E	7	R715	L	5			
C270	F	8	C640	J	9	J330	Q	5	R144	E	7	R716	L	5			
C271	F	7	C641	I	9	J371	K	12	R146	U	12	R717	K	5			
C272	F	8	C701	H	5	J381	G	5	R148	U	12	R720	K	7			
C273	F	7	C706	K	5	J385	G	5	R165	F	11	R721	K	7			
C282	Q	12	C707	K	5	J386	G	6	R167	F	7	R725	K	6			

